

Montana DEQ Forest Fire Smoke Advisory

August 20, 2007

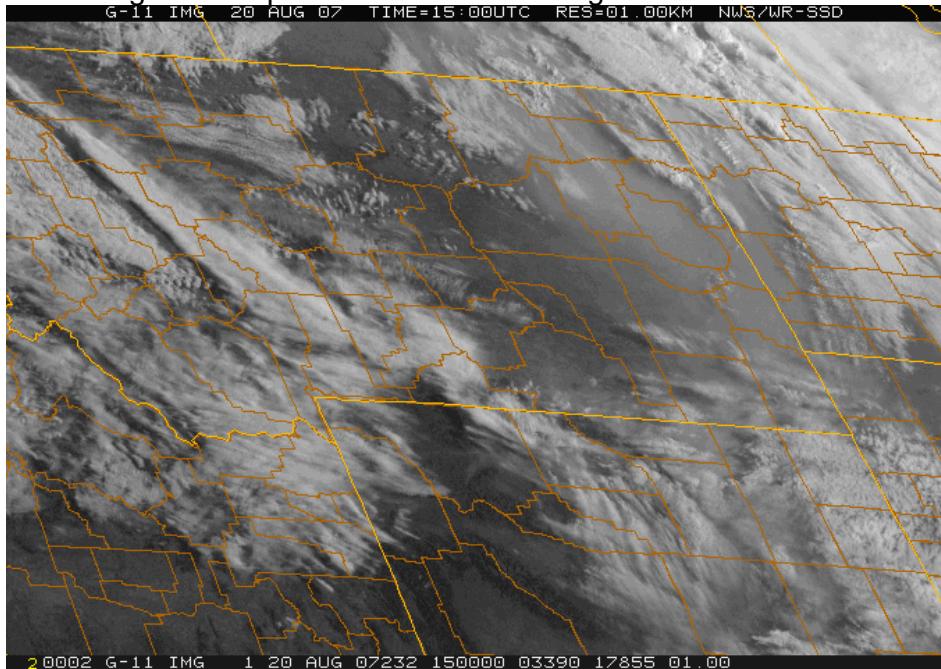
10:00 AM Monday

FORECAST:

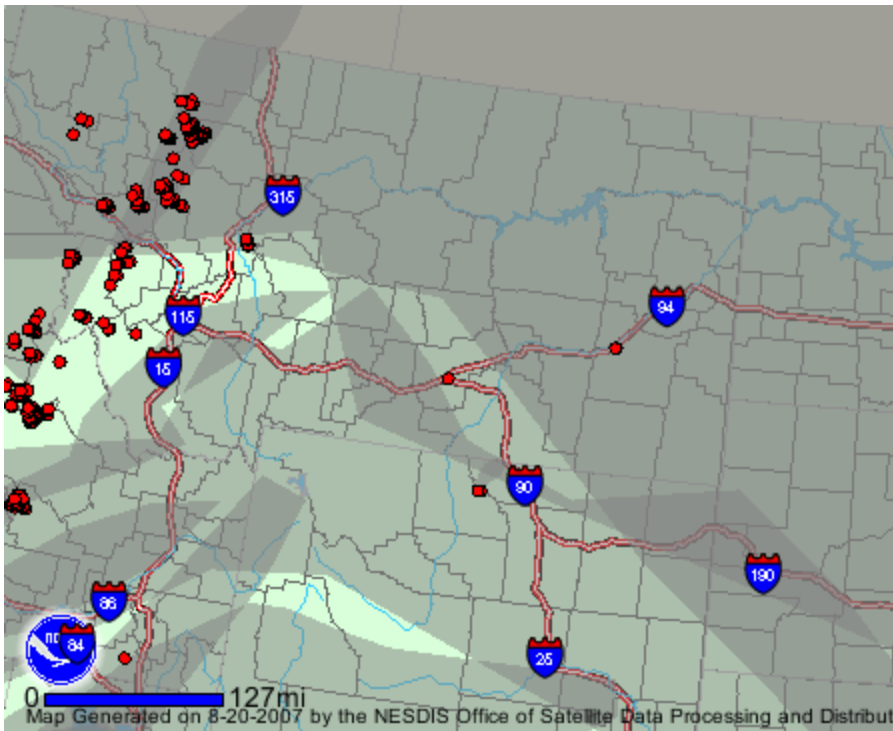
The cold front passing through the state last night and this morning turned into a smoke front for many areas of the state. The mass of smoke being pushed along by high winds is several hundred miles wide and stretches north to south from Canada to Wyoming. The smoke front went through Butte, Helena, Bozeman, and Great Falls last night suddenly dropping visibilities down under two miles and lasting for 5 to 6 hours producing very unhealthy to unhealthy smoke levels as it passed. The smoke has moved into eastern Montana this morning reaching Glasgow at 6 am and Miles City at 7 am. Smoke levels there are at unhealthy right now and will likely persist in that range for a few more hours. Smoke conditions in western Montana behind the front are almost uniformly good right now as all of the residual smoke has been flushed out of the valleys where it had been trapped so long. Moderate levels of smoke have started reaching Dillon however as a strong westerly wind has pushed fresh smoke from Idaho into the southwestern corner of the state.

There will be considerable relief from the smoke for at least the next day or so as a northwest flow aloft becomes established and more showers reduce fire activity levels in many areas. This does not seem to be the "season ending event" we have been waiting for and warmer temperatures and dry conditions will return mid-week. Local smoke impacts from nearby plumes will still be an issue with brisk winds keeping some fires active. Residents near active fires or experiencing noticeable smoke levels should use the [visibility guidelines](#) to determine smoke levels in their area and guide their activity decisions.

A morning satellite photo centered on Billings is illustrated below:



This morning's analysis from NOAA's satellite services division shows the active fires in Montana and the smoke plumes combining and spreading downwind (the analyzed smoke is based on yesterday's satellite coverage, the fire detects are based on last night's satellite coverage).



Red indicates hot spot detected. Grey represents smoke seen by satellite. Fire size is exaggerated for visibility at this scale

To identify individual fires on graphic above go here:

http://activefiremaps.fs.fed.us/lq_fire2.php

This morning's smoke report is below, comparing particulate levels where we have information to MDEQ's Forest Fire health advisory levels.

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DISCUSSION:

Western Montana is much improved this morning with [good](#) conditions replacing the smoky tale of the past few weeks. Local impacts near the active fires are still an issue and [moderate](#) levels have re-established themselves in the Dillon area as west winds are pushing fresh smoke from the fires in Idaho into southwestern Montana. In eastern Montana, Glasgow and Miles City are at [unhealthy](#) right now and Glendive, Wolf Point, and Sidney have just started to see the front edge of the smoke plume. This smoke should be pretty much out of the state by early afternoon. The advisories in the table below represent conditions between midnight and 8 AM and may change substantially through the day. Residents downwind of the active fires and experiencing impacts from residual smoke will need to pay close attention to conditions in their area and use the [visibility guidelines](#) to determine current conditions. Local impacts in areas immediately adjacent to active fires are expected to exceed some or all of the advisory levels. DEQ recommends the use of local visibility to guide activity decisions as the situation changes.

[John Coefield](#)

Meteorologist

Montana Department of Environmental Quality

Updated 10 AM August 20, 2007

Locations and severity of forest fire smoke reports since midnight of the date above at reporting stations.

Real time particulate information is currently available in most of the larger urban areas from several different sources including: DEQ run PM-10 BAMS and PM2.5 BAMS, CS&KT run PM-10 TEOMS, NWS ASOS visibility monitors, and USFS remote access Nephelometers and BAMS.

<u>HAZARDOUS</u>	
<u>VERY UNHEALTHY</u>	
<u>UNHEALTHY</u>	Glasgow Vis(3) Miles City Vis(3) Wolf Point Vis(2)
<u>UNHEALTHY FOR SENSITIVE GROUPS</u>	
<u>MODERATE</u>	Dillon Vis(3) Glendive Vis(2) Sidney Vs(2)